

REMARKS

The Examiner is thanked for the review of the present patent application. The "Cross Reference to Related Applications" section has been amended to correctly reflect the U.S. Patent Application Nos. of the related U.S. Patent Applications. In addition, a paragraph within the detailed description has been amended to correctly reflect the U.S. Patent Application Number of the U.S. Patent Application referred therein. These amendments do not add new matter. Claims 1-32 are pending in this application.

Rejections under 35 U.S.C. § 103

Claims 1-20, 28, 29, and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over "Clustering: Transparent Replication, Load Balancing, and Failover" by Salil Deshpande, published January 2000. Applicants respectfully traverse this rejection. Applicants submit that many differences exist between the claimed inventions and the teachings of Deshpande and for the sake of brevity, only some will be discussed below. As will be fully explained, Deshpande does not disclose or suggest each and every feature of independent claims 1, 11, and 16 as required to raise a prima facie case of section 103 obviousness against independent claims 1, 11, and 16.

Among the many differences between the claimed inventions and the cited prior art references, claim 1 includes the features of the replicated state manager with the capability of managing a replicated and migration capable session state of the Java application using an in-memory database within a Java server process, and the replicated state manager is further capable of replicating the in-memory state of the Java application to a replicated state server. In support of its rejection, the Office cites page 14 of Deshpande and suggests that "any replication and fail over would obviously be controlled by some form of a replicated state manager...." (See Page 2 of Office Action). By this statement, Applicants respectfully

submits that the Office itself has admitted that Deshpande does not disclose the replicated state manager. Moreover, although Deshpande discusses storage of entity bean states in traditional J2EE fashion, Deshpande does not teach, disclose, or suggest a replicated state manager that can use an in-memory database as claimed in claim 1. In fact, in page 10, Deshpande actually teaches against using in-memory replication by stating in pertinent part:

Generally, the replication for such session state is in-memory, and not disk- or database-based. It is thus still susceptible to failures, and not suitable for persistent components.

Therefore, Deshpande explicitly denigrates the usage of in-memory replication and explicitly states that in-memory replication is unsuitable for persistent components. Therefore, Applicants submit that Deshpande teaches against using an in-memory database for entity bean state replication. Consequently, Applicants respectfully submit that Deshpande does not disclose or suggest using an in-memory database for entity bean replication. Additionally, Deshpande only discusses usage of a single database with entity bean states but does not discuss usage of both an in-memory database and a replicated state server which can both contain entity bean states that can be recovered. Therefore, Applicants respectfully submit that the Office has failed to raise a prima facie case of obviousness against claim 1. Moreover, because Deshpande teaches against in-memory entity bean state replication, Applicants respectfully submit that one skilled in the art would not have used the teachings of Deshpande to generate the claimed invention of claim 1.

Claim 11 includes the feature of the first state object storing a state of the entity bean object within a memory address space of a J2EE server process. As discussed above with respect to claim 1, Deshpande does not disclose or suggest the storing of the state of the entity bean object within a memory address space, and moreover, Deshpande actually teaches against the usage of in-memory saving of entity bean states.

Claim 11 also includes the feature of using a replicated state server. As a result, Applicants also respectfully submit that as discussed above, Deshpande does not disclose or suggest the usage of in-memory storage in addition to the replicated state server. Therefore, Applicants respectfully submit that the Office has failed to raise a prima facie case of obviousness against claim 11. In addition, because Deshpande teaches against in-memory entity bean state replication, Applicants respectfully submit that one skilled in the art would not have used the teachings of Deshpande to generate the claimed invention of claim 11.

Claim 16 includes the features of a managed state part having a first state object storing a state of the entity bean object and the second state object storing a state of the related entity bean object. Applicants respectfully submit that Deshpande neither discloses nor suggests storing a state of an entity bean within a state object of a managed state part. In addition, claim 16 includes the feature of the managed state part maintaining a relationship between the entity bean object and the related entity bean object. The Office states that "entity beans E1 and E2 are related due to use by the same application" and tries to propose that this suggests the relationship as claimed in claim 16. Applicants respectfully traverse this suggestion. Applicants respectfully submit that just because two entity beans are used by the same application does not mean the two entity beans have a relationship. Therefore, Applicants respectfully submit that Deshpande does not disclose or suggest the managed state part maintaining a relationship between the entity bean object and the related entity bean object.

Claim 16 further includes the feature of a state object that stores a state of an entity bean and also includes the feature of a replicated state server that stores a replica of the state object. Deshpande generally teaches the fail over from entity beans in one container to entity beans of the same type in a different container. Therefore, Deshpande teaches having one copy of a past state of the entity bean. Consequently, Applicants respectfully submit that

Deshpande does not disclose or suggest both a state object with a state of an entity bean and also a replica of the state object in the replicated server. Therefore, for the foregoing reasons, Applicants respectfully submit that the Office has failed to raise a prima facie case of obviousness against claim 16.

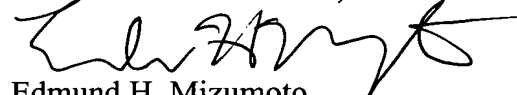
Applicants therefore respectfully submit that Deshpande does not disclose or suggest all of the features of the claimed inventions. Applicants respectfully submit that the dependent claims are allowable for at least the same reasons as the independent claims. Consequently, Applicants respectfully request that the section 103 rejections be withdrawn.

Allowable Subject Matter

The Examiner has stated that claims 21-27, 30, and 31 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants respectfully submit that, for the reasons discussed above, claim 16 is allowable and therefore claims 21-27, 30, and 31 are allowable in their present form.

In view of the foregoing, Applicants submit that these claims are in condition for allowance. Accordingly, a notice of allowance is respectfully requested. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 749-6900 ext. 6927. If any additional fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. SUNMP005).

Respectfully submitted,
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